AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A gas turbo pump assembly for connection to an inlet port, comprising:

a turbo pump having a pump body with an external surface and a center axis, a pump inlet port, said pump inlet port being disposed at ~~said~~ a first axial end of said pump body and being coupled to ~~said~~ a vacuum chamber port, and an exit port disposed proximate ~~said~~ a second axial end of said body; and

a vibration damping assembly, disposed to enclose a significant portion of said pump body in a nested arrangement, said vibration damping assembly comprising a first nested structure having an outer peripheral surface and an inner peripheral surface, said inner peripheral surface being disposed around and adjacent to the external surface of said significant portion of said pump body, and a second nested structure having an inner peripheral surface, said surface being disposed around and adjacent to the outer peripheral surface of said first nested structure .

2. (original): The turbo pump assembly as recited in claim 1, wherein said turbo pump is coupled to a rigid mounting structure at said pump inlet port via said vibration damping assembly.

3. (original): The turbo pump assembly as recited in claim 2, wherein said vibration damping assembly is coupled between said rigid mounting structure and at least a first coupling portion at said first axial end of said pump body and a second coupling portion on the pump body disposed between said first axial end and said second axial end of said pump body.

4. (currently amended): The turbo pump assembly as recited in claim 3, wherein said second coupling portion comprises a radially extended structure integrally formed on said pump body.

5. (currently amended): The turbo pump assembly as recited in claim 1, wherein ~~said vibration damping assembly comprises a first connection structure,~~ said first ~~connection~~ nested structure ~~being~~ is a flexible damping structure having a first distal end and a second distal end and ~~being~~ is coupled between said rigid mounting structure at the first distal end and said pump at the second distal end.

6. (currently amended): The turbo pump assembly as recited in claim 5, wherein said ~~vibration damping assembly further comprises a second connection structure, said~~ second ~~connection~~ nested structure ~~being~~ is a rigid structure having a first distal end and a second distal end and ~~being~~ is coupled ~~between~~ to said pump body at ~~it's~~ the first distal end of said rigid structure and the second distal end of said first connecting structure at ~~its~~ the second distal end of said rigid structure.

7. (currently amended): The turbo pump assembly as recited in claim 5, wherein said ~~vibration damping assembly~~ first nested structure comprises a flexible bellows.

8. (currently amended): The turbo pump assembly as recited in claim 5, wherein ~~said vibration damping assembly further comprises a second flexible connection structure,~~ said second ~~connection~~ nested structure being a flexible structure having a first distal end and a second distal end and being coupled at the first distal end of said flexible structure to ~~between~~ said pump at said first axial end and to the second end of said first ~~connecting~~ nested structure at ~~its~~ the second distal end of said flexible structure.

9. (currently amended): The turbo pump assembly as recited in claim 8, wherein at least one of said first nested structure and said second nested structure ~~said vibration damper~~ comprises at least one flexible bellows.

10. (currently amended): The turbo pump assembly as recited in claim 9, wherein both said first nested ~~connection~~ structure and said second nested structure are flexible and are adapted to reduce both compression and extraction forces.

Claim 11 is cancelled.

12. (currently amended): The turbo pump assembly as recited in ~~claim 11~~ claim 1, wherein ~~said vibration damper~~ at least one of said first nested structure and said second nested structure comprises a flexible bellows.

13. (original): The turbo pump assembly as recited in claim 11, wherein said flexible bellows is connected for extraction by atmospheric pressure.

14. (original): The turbo pump assembly as recited in claim 1, wherein said exit port is disposed proximate said second axial end of said body, and is not covered by said vibration damping assembly.

15. (original): The turbo pump assembly as recited in claim 1, wherein said body external surface further comprises an axial portion and an end portion, said end portion being substantially radially extended from said center axis to said axial portion and being adapted for receiving facilities connections.

16. (currently amended): The turbo pump assembly as recited in claim 1, wherein said ~~major~~ significant portion comprises between 50% and 70% of said external side surface

17. (original): The turbo pump assembly as recited in claim 10, wherein said pump facilities connected through said bottom comprise one or more of a rough pumping port, cooling water inlet and outlet, bearings gas purge and electrical connections.

18. (original): The turbo pump assembly as recited in claim 4, wherein said coupling portion comprises a ring extended around said body.

19. (original): The turbo pump assembly as recited in claim 4, wherein said coupling portion comprises a plurality of flanges disposed around said body.

20. (currently amended): The turbo pump assembly as recited in claim 6 where the vibration damping assembly defined by the first connection structure and the second connection structure is substantially cone shaped.

21. (currently amended): The turbo pump assembly as recited in ~~claim 11~~ claim 1 where the vibration damping assembly defined by the first ~~connection~~ nested structure and the second ~~connection~~ nested structure is substantially cone shaped.

Claims 22-27 are cancelled.

28. (currently amended): A vibration damping assembly for substantially enclosing a gas turbo pump in a nested fashion, and securing the pump to an inlet port, comprising:

a vibration damping structure defining an enclosure having at axially opposed ends a first and second opening, respectively, said first opening being adapted for coupling to an inlet port and said second opening being adapted to receive therein a substantial portion of the pump, said vibration damping structure comprising a first ~~connection~~ nested structure and a second ~~connection~~ nested structure, said first ~~connection~~ nested structure being a rigid support structure having first and second ends and being adapted to being coupled between a rigid mounting structure at the first end and said second ~~connection~~ nested structure at the second end, said second ~~connection~~ nested structure being flexible and being coupled between said pump body at said first axial end and said first ~~connection~~ nested structure.

29. (original) The turbo pump assembly as recited in claim 28, wherein said vibration damper comprises a flexible bellows.